

WHAT IS CLAIMED IS:

1 1. A method comprising:

2 moving data from a network layer into a physical memory
3 page, said physical memory page comprising a plurality of
4 physical memory clusters;

5 creating a logical page providing an aligned view of the
6 data;

7 establishing a relationship between the logical page and
8 the physical memory page such that the logical page is
9 associated with said plurality of physical memory clusters;
10 and

11 forwarding a list of the logical pages to a storage
12 resource such that the data referenced by the logical pages
13 are stored subsequently into a storage resource.

1 2. The method of claim 1 further comprising:

2 dividing the physical memory pages into physical memory
3 clusters such that the data received by the network layer is
4 stored into the physical memory clusters.

1 3. The method of claim 1 further comprising:

2 creating a plurality of logical page based on the offset
3 and length of the data associated with a network write
4 operation.

1 4. The method of claim 1 further comprising:

2 creating a read only logical page comprising zeros.

1 5. The method of claim 1 further comprising:

2 merging an existing physical memory cluster with a new
3 physical cluster based on the offset and length of the
4 existing physical memory cluster and based on the offset and
5 length of the new physical memory cluster.

1 6. A computer system comprising:

2 a memory including at least one physical memory page and
3 at least one logical page;

4 a network layer for receiving non-aligned data;

5 a storage resource providing aligned data; and

6 a processor configured to:

7 move data from a network layer into a physical
8 memory page, said physical memory page comprising a
9 plurality of physical memory clusters,

10 create a logical page providing an aligned view of
11 the data,

12 establish a relationship between the logical page
13 and the physical memory page such that the logical page
14 is associated with said plurality of physical memory
15 clusters, and

16 forward a list of the logical pages to a storage
17 resource such that the data referenced by the logical
18 pages are stored subsequently into a storage resource.

1 7. The system of claim 6 wherein the processor is further
2 configured to divide the physical memory pages into a memory
3 cluster such that the data received by the network layer is
4 stored into the memory cluster.

1 8. The system of claim 6 wherein the processor is further
2 configured to create a logical page layer based on the offset
3 and length of the data associated with a network layer write
4 operation.

1 9. The system of claim 6 wherein the processor is configured
2 to create a read only logical page of zeros.

1 10. The system of claim 6 wherein the processor is configured
2 to create a read only logical page of uninitialized data.

1 11. The system of claim 6 wherein the processor is further
2 configured to merge an existing physical memory cluster with a
3 new physical memory cluster based on the offset and length of
4 the existing physical memory cluster and based on the offset
5 and length of the new physical memory cluster.

1 12. The system of claim 6 wherein the processor is further
2 configured to merge an existing physical memory cluster with a
3 new physical memory cluster based on the offset and length of
4 the existing physical memory cluster and based on the offset
5 and length of the new physical memory cluster.

1 13. The system of claim 6 wherein the processor is further
2 configured to merge an existing physical memory cluster with a
3 new physical memory cluster based on the offset and length of
4 the existing physical memory cluster and based on the offset
5 and length of the new physical memory cluster.

1 14. An article comprising a computer-readable medium that
2 stores computer executable instructions for causing a computer
3 to:

4 move data from a network layer into a physical memory
5 page, said physical memory page comprising a plurality of
6 physical memory clusters;

7 create a logical page providing an aligned view of the
8 data;

9 establish a relationship between the logical page and the
10 physical memory page such that the logical page is associated
11 with said plurality of physical memory clusters; and

forward a list of the logical pages to a storage resource such that the data referenced by the logical pages are stored subsequently into a storage resource.

15. The article of claim 14 further including instructions to divide the physical memory pages into physical memory clusters such that the data received by the network layer is stored into the physical memory clusters.

16. The article of claim 14 further including instructions to create a logical page based on the offset and length of the data associated with a network write operation.

17. The article of claim 14 further including instructions to create a read only logical page of zeros.

18. The article of claim 14 further including instructions to merge an existing physical memory cluster with a new physical cluster based on the offset and length of the existing physical memory cluster and based on the offset and length of the new physical memory cluster.